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| OSPF                       | 2840      |
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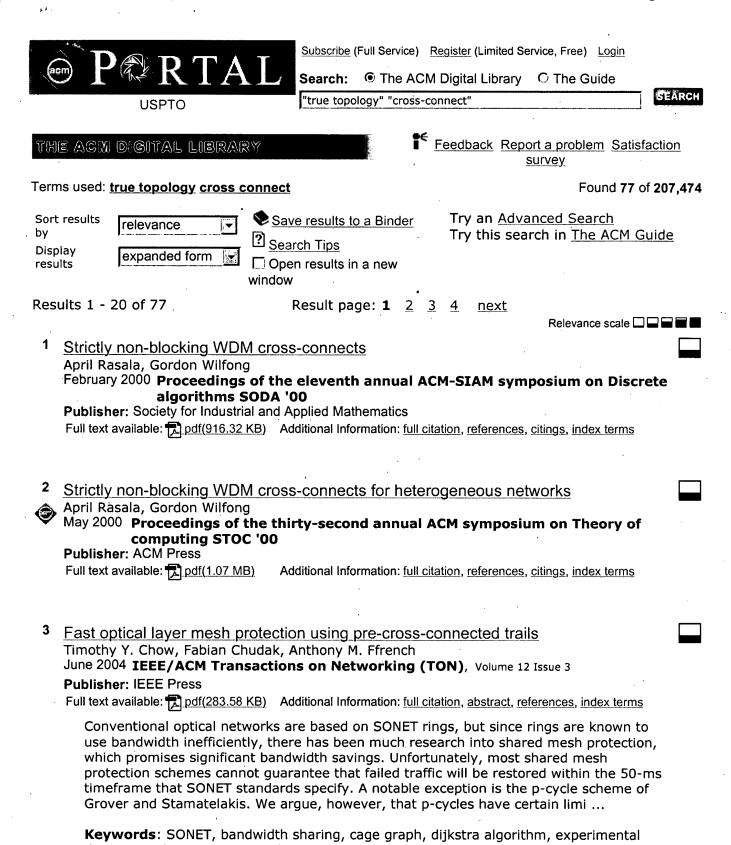
### **Search History**

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| <u>L15</u>      | L14 and OSPF                             | . 7       | <u>L15</u>      |
| <u>L14</u>      | L13 and SONET                            | 16        | <u>L14</u>      |
| <u>L13</u>      | path and client near network adj element | . 40      | <u>L13</u>      |
| <u>L12</u>      | L10 and peer\$                           | . 1       | <u>L12</u>      |
| <u>L11</u>      | L10 and peer\$ near rout\$               | 0         | <u>L11</u>      |
| <u>L10</u>      | L9 and cross-connect                     | 12        | <u>L10</u>      |
| <u>L9</u>       | server and 17                            | 130       | <u>L9</u>       |
| <u>L8</u>       | L7 and SONET near cross adj connect\$    | 1         | <u>L8</u>       |
| <u>L7</u> .     | L6 and network adj element               | 219       | <u>L7</u>       |
| <u>L6</u>       | 370/351.ccls.                            | 1547      | <u>L6</u>       |
| <u>L5</u>       | L4 and distribut\$                       | 2         | <u>L5</u>       |
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| <u>L4</u> | L3 and peer                 | 2    | <u>L4</u> |
|-----------|-----------------------------|------|-----------|
| <u>L3</u> | L2 AND sonet near cross     | 2    | <u>L3</u> |
| <u>L2</u> | L1 and network near element | 193  | <u>L2</u> |
| <u>L1</u> | server and client near NE\$ | 2275 | L1        |

### END OF SEARCH HISTORY



design, mesh protection, mesh restoration, online algorithm, p-cycle, self-healing networks, survivable optical networks

Optimization of optical cross-connects with wave-mixing conversion Abel Dasylva, Delfin Y. Montuno, Prasad Kodaypak

|   | April 2005 IEEE/ACM Transactions on Networking (TON), Volume 13 Issue 2 Publisher: IEEE Press  |   |
|---|--|---|
|   | Full text available: 🔁 pdf(625.79 KB) Additional Information: full citation, abstract, references, index terms   |   |
|   | This paper presents new constructions of multistage wave-mixing networks with arbitrary $b \times b$ space-switching elements, where $b \ge 2$ . In these networks, for a size of $F$ fiber links and $W$ wavelengths per link, converter requirements are $O(F \log bW)$ or $O(FW/b)$ for rearrangeable nodes, and $O(F \log bW \log b(FW))$ or $O(FW \log b(FW)/b)$ for different types of strictly nonblocking nodes inspired from  |   |
|   | <b>Keywords</b> : photonic cross-connect, wave-length-conversion, wave-mixing, wavelength-switching  | • |
| • |  |   |
| 5 | A surjective-mapping based model for optical shared-buffer cross-connect  Ayman G. Fayoumi, Anura P. Jayasumana February 2007 IEEE/ACM Transactions on Networking (TON), Volume 15 Issue 1   |   |
|   | Publisher: IEEE Press  |   |
|   | Full text available: 🔁 pdf(435.20 KB) Additional Information: full citation, abstract, references, index terms   |   |
|   | A Surjective-Mapping based Model (SMM) is developed to evaluate the performance of a slotted optical shared-buffer cross-connect. The model is simple, accurate, and yet provides comprehensive performance characteristics of the switch. The model also overcomes the limitations of traditional Markovian based models in evaluating moderate to large switches, associated with the explosion of number of states. The model is verified using simulation results for different switch sizes and different nu    |   |
|   | <b>Keywords</b> : combinatorics, optical communication, packet switching, shared memory, simulations   |   |
| 6 | A passive protected self-healing mesh network architecture and applications Tsong-Ho Wu February 1994 IEEE/ACM Transactions on Networking (TON), Volume 2 Issue 1 Publisher: IEEE Press  |   |
|   | Full text available: pdf(1.67 MB)  Additional Information: full citation, references, citings, index terms, review   |   |
|   |  |   |
| 7 | Constructions and analyses of nonblocking WDM switches based on arrayed waveguide grating and limited wavelength conversion  Hung Q. Ngo, Dazhen Pan, Chunming Qiao February 2006 IEEE/ACM Transactions on Networking (TON), Volume 14 Issue 1  Publisher: IEEE Press  |   |
|   | Full text available: pdf(546.49 KB) Additional Information: full citation, abstract, references, index terms   |   |
|   | Constructing fast wavelength division multiplexing switches with cheap, integratable components, less power consumption and noise accumulation, and low complexity is an important problem in optical networking. Typically, there are two request models widely considered. In one model, a connection request asks to go from a wavelength on an input fiber of the WDM switch to a particular wavelength on an output fiber. In the other, a connection only needs to get to a particular output fiber, irrespect | · |
|   | Keywords: limited-range wavelength converters, non-blocking WDM cross-connects   |   |
|   |  |   |

| 8        | Multi-hour, multi-traffic class network design for virtual path-based dynamically  |   |
|----------|--|---|
|          | reconfigurable wide-area ATM networks  |   |
|          | D. Medhi December 1995 IEEE/ACM Transactions on Networking (TON), Volume 3 Issue 6   |   |
|          | Publisher: IEEE Press  |   |
|          | Full text available: pdf(1.12 MB)  Additional Information: full citation, references, citings, index terms   |   |
|          |  |   |
|          | <b>Keywords</b> : duality and subgradient optimization, dynamic virtual path routing, multihour network capacity design, on-off fluid flow model, optimization model, wide-area ATM networks   |   |
| 9        | Analysis of OBS networks with limited wavelength conversion  |   |
|          | Zvi Rosberg, Andrew Zalesky, Hai L. Vu, Moshe Zukerman<br>October 2006 IEEE/ACM Transactions on Networking (TON), Volume 14 Issue 5  |   |
|          | Publisher: IEEE Press  |   |
|          | Full text available: pdf(799.62 KB) Additional Information: full citation, abstract, references, index terms   |   |
|          | Presented herein is a scalable framework for estimating path blocking probabilities in optical burst switched (OBS) networks where limited wavelength conversion is possible. Although presented under the guise of OBS, it is pertinent to a broader class of optical networks based on the principle of bufferless unacknowledged switching. By applying the framework to the NSFNET topology, it is shown that even the most limited conversion range may reduce path blocking probabilities by several orders of | • |
|          | <b>Keywords</b> : all-optical network, blocking probability, limited wavelength conversion, optical burst switching, reduced load approximation  |   |
| 10       | Distributed computation of shared backup path in mesh optical networks using   |   |
|          | probabilistic methods  |   |
|          | Eric Bouillet, Jean-François Labourdette   |   |
|          | October 2004 IEEE/ACM Transactions on Networking (TON), Volume 12 Issue 5 Publisher: IEEE Press  |   |
|          | Full text available: pdf(816.43 KB) Additional Information: full citation, abstract, references, index terms   |   |
|          | We assess the benefits of using statistical techniques to ascertain the shareability of protection channels when computing shared-mesh restored lightpaths in optical mesh networks. These optical networks support wavelength conversion everywhere as a byproduct of the electronic nature of the switching in the optical-electronic-optical optical cross connect used. Current deterministic approaches require a detailed level of information proportional to the number of active lightpaths. Although th    |   |
|          | <b>Keywords</b> : mesh protection, optical networks, optical switching, performance analysis, probabilistic algorithm  |   |
|          |  |   |
| 11       | Design of a highly reliable cube-connected cycles architecture Nian-Feng Tzeng   |   |
| <b>②</b> | August 1991 Proceedings of the 1991 ACM/IEEE conference on Supercomputing Supercomputing '91 Publisher: ACM Press  |   |
|          | Full text available: pdf(892.09 KB) Additional Information: full citation, references, index terms   |   |

| 12 | Loopback recovery from double-link failures in optical mesh networks Hongsik Choi, Suresh Subramaniam, Hyeong-Ah Choi December 2004 IEEE/ACM Transactions on Networking (TON), Volume 12 Issue 6   |   |
|----|--|---|
|    | Publisher: IEEE Press  |   |
|    | Full text available: pdf(505.00 KB) Additional Information: full citation, abstract, references, index terms   |   |
|    | Network survivability is a crucial requirement in high-speed optical networks. Typical approaches of providing survivability have considered the failure of a single component such as a link or a node. In this paper, we motivate the need for considering double-link failures and present three loopback methods for handling such failures. In the first two methods, two edge-disjoint backup paths are computed for each link for rerouting traffic when a pair of links fails. These methods require the ide |   |
|    | <b>Keywords</b> : 3-edge-connected graph, double-link failure, link protection, loopback recovery, shared risk link group, wavelength division multiplexing (WDM)  |   |
|    |  |   |
| 13 | Customer-managed end-to-end lightpath provisioning  Jing Wu, Michel Savoie, Scott Campbell, Hanxi Zhang, Gregor V. Bochmann, Bill St. Arnaud September 2005 International Journal of Network Management, Volume 15 Issue 5   |   |
|    | Publisher: John Wiley & Sons, Inc. Full text available: pdf(303.32 KB) Additional Information: full citation, abstract, references, index terms  |   |
|    | Customer-owned and managed optical networks bring new cost-saving benefits. Two types of such networks are becoming widely used: metro dark fiber networks and longhaul leased wavelength networks. Customers may invoke a special QoS mechanism where end-to-end (E2E) lightpaths are dynamically established across multiple independently managed customer domains. The cost of bandwidth is substantially reduced since it largely becomes a capital cost rather than an ongoing service charge. Customers can   |   |
| 14 | Generalized sharing in survivable optical networks   |   |
|    | Maher Ali December 2006 IEEE/ACM Transactions on Networking (TON), Volume 14 Issue 6   |   |
|    | Publisher: IEEE Press  |   |
|    | Full text available: pdf(1.24 MB) Additional Information: full citation, abstract, references, index terms   |   |
|    | Shared path protection has been demonstrated to be a very efficient survivability scheme for optical networking. In this scheme, multiple backup paths can share a given optical channel if their corresponding primary routes are not expected to fail simultaneously. The focus in this area has been the optimization of the total channels (i.e., bandwidth) provisioned in the network through the intelligent routing of primary and backup routes. In this work, we extend the current path protection sharin | · |
|    | Keywords: optical networks, shared protection  |   |
|    |  |   |
| 15 | Adapting a data organization to the structure of stored information  M. Bärtschi, H. P. Frei  May 1982 Proceedings of the 5th annual ACM conference on Research and  |   |
|    | development in information retrieval SIGIR '82  Publisher: Springer-Verlag New York, Inc.  |   |
|    | Full text available: pdf(932.30 KB) Additional Information: full citation, abstract, references, citings   |   |
|    | A data organization for information retrieval (IR) systems is described which uses the   |   |

structures imposed on the stored information. Trees are used as the main structure of data as information contents are often hierarchically structured (e.g. classifications, thesauri). However, these trees have been expanded to pseudo networks by so-called cross connecting paths. So-called data connecting paths link the information structures and the main data file. Terms occurring in the query formulation may ...

| 16             | Protection interoperability for WDM optical networks Olivier Crochat, Jean-Yves Le Boudec, Ornan Gerstel June 2000 IEEE/ACM Transactions on Networking (TON), Volume 8 Issue 3   |         |
|----------------|--|---------|
|                | Publisher: IEEE Press  |         |
|                | Full text available: pdf(284.28 KB) Additional Information: full citation, references, citings, index terms  |         |
|                | Keywords: WDM, interoperability, optical network, protection, routing, taboo search  |         |
| 17             | Flexible specification of workflow compensation scopes   |         |
|                | Weimin Du, Jim Davis, Ming-Chien Shan  |         |
| <b>&gt;</b>    | November 1997 Proceedings of the international ACM SIGGROUP conference on Supporting group work: the integration challenge GROUP '97 Publisher: ACM Press  |         |
|                | Full text available: pdf(1.18 MB)  Additional Information: full citation, references, citings, index terms   |         |
|                | Keywords: compensation, compensation scope, workflow   |         |
| 18<br><b>②</b> | RouterFarm: towards a dynamic, manageable network edge  Mukesh Agrawal, Susan R. Bailey, Albert Greenberg, Jorge Pastor, Panagiotis Sebos,  Srinivasan Seshan, Kobus van der Merwe, Jennifer Yates  September 2006 Proceedings of the 2006 SIGCOMM workshop on Internet network  management INM '06  |         |
|                | Publisher: ACM Press Full text available: pdf(441.86 KB) Additional Information: full citation, abstract, references, index terms  |         |
|                | Planned maintenance is a fact of life in IP networks. Examples of maintenance activities include updating router software as well as processor upgrades, memory upgrades, installation of additional line cards, and other hardware upgrades. While planned maintenance is clearly necessary, it is also costly. Software upgrades, for example, require rebooting the router. Due to the time required to reboot the router, and then synchronize state (such as BGP routing information) with network neighbors, t |         |
|                | Keywords: availability, manageability, network edge, reliability   |         |
|                |  |         |
| 19             | Fault recovery for guaranteed performance communications connections   |         |
| 13             | Fault recovery for guaranteed performance communications connections Anindo Banerjea October 1999 IEEE/ACM Transactions on Networking (TON), Volume 7 Issue 5  | <u></u> |
|                | Publisher: IEEE Press  |         |
|                | Full text available: press  Full text available: press  Additional Information: full citation, references, index terms   |         |
|                | Additional information: full citation, references, index terms   |         |
|                |  |         |
|                |  |         |

**Keywords**: B-ISDN, computer network management, connection routing, network reliability, real time channels

20 Effects of wavelength routing and selection algorithms on wavelength conversion gain in WDM optical networks

Ezhan Karasan, Ender Ayanoglu

April 1998 IEEE/ACM Transactions on Networking (TON), Volume 6 Issue 2

Publisher: IEEE Press

Full text available: pdf(247.94 KB) Additional Information: full citation, references, citings, index terms

Keywords: optical networks, routing, wavelength conversion, wavelength selection

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